SECRET

MEMORANDUM FOR THE FILE

SUBJECT : Film Processing

Introduction:

Selection of an appropriate organizational structure and equipment for film processing depends considerably on the objectives of the overall program. If the prime object were to produce up-to-the minute intelligence for tactical use in active warfare it is clear that extremely rapid processing near a first echelon command post would be indicated. If, on the other hand, the prime objective was to produce an improved map of the target area, processing methods which assured dimensional stability would be favored over methods which gave particularly high resolution. The primary objective of this program is neither the gathering of tacical intelligence nor the creation of actual maps. It is to supply our administration with the kind of intelligence which will expose quantitively the enemy's strength and weaknesess in the time of "cold war", the need is for very high resolution so that an accurate appraisal of industrial capacity and military strength can be derived from the photographs. We need specific answers to such questions as: "How many type 37 bombers are ready for use? Has in-flight refueling been fully developed. How many advance staging bases are there and where are they? What is the state of this ICBM development? Are there any important completely new weapons under development? If so, what are they like? Considering the necessity of taking these pictures from extremely high altitudes in order to gain safety it is clear that the very best photographic resolution possible will be none too good.

The requirement for absolute reliability in the film processing plant is possibly even more critical than that for high resolution. From a simple dollar and cents standpoint loss of any film through defective processing would be intollerable. Present estimates indicate that the average overall cost for missions will be at least [redacted] In terms of possible spoilage of the fruits of human risk and loss of irreplaceable data there can be no excuse for not providing the best possible organization and facilities for the film processing.

25X1A

Organization

The basic products of all the missions will be 9½" film in rolls up to 4200 ft. in length. The success of this entire program will be measured almost exclusively by the amount of usefull information from this film. Preparation of this vehicle, the camera and the unexposed film and the plans for mission routings is being worked out with one goal of serving the kind of information indicated above.

SECRET

The selection of processing methods and their day to day operation must be directed with comparable understanding and care to this same goal. The objective of this program is perhaps foreign to the thinking of many who have had wide experience in photo reconnaisance and aerial mapping, and consequently effective communication with men experienced in these fields cannot be taken for granted. This is to say that supervision of the film processing should be directly and authoritatively respnsive to the office in charge of the overall project so that the chances of inadequate communication will be minimized. Furthermore it is essential that the keen sense of urgency of the program and the drive to receive photographic quality never before attained be shared equally by the film processing people and the leaders of the program. This all calls for a closely knit organizational structure which covers full responsibility and authority for the operation at least up to the point where the desired information has been brought to permanent record status and can be readily reproduced for distribution without hazard to the original negative.

Location of Film Processing Facility

Logistic and security consideration make impractical to set up the necessary processing facilities and to support the number of technicians needed at a forward base. Also better utilization of trained technicians and special equipment can be achieved at a Z1 base which receive film from all of the forward bases as compared with establishing a processing unit with each forward base. Furthermore to develop the film on foreign soil would create a major security liability in the sense that a considerable number of individuals at the forward base would become informed on the highly critical intelligence being governed by the project.

For forward base operational control purposes there should be a special portable film processing facility to permit rapid on-the-spot processing of the 70 MM tracting film taken on each mission. This will permit intelligent supervision of the forward base activity for purposes of estimating the coverage of each mission, observing enroute weather conditions, checking navigation, etc. capacity and type of equipment.

Present estimates indicate that the processing facility must be coordinated with a peak mission activity of 40 missions per month and a total of perhaps 240 missions over 12(?) month period. The amount of film per mission is expected to average about 5,000 feet. This in order to keep abreast of forward base production the processing facility should have a capacity of about 200,000 feet per month.

Well proven film processing equipment such as the "A-9" is usually rated at 5 feet per minute. Thus it is apparent that even if the processing facility is planned on the basis of 24 hour per day, six day per week operation at least two processing machines would be required. Allowing for maintenance and stand-by capacity at least three machines would be required.